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EXAMINER

PHAM, KHANH B

ART UNIT

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2166

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/858,268	Applicant(s) ETHEN ET AL.	
	Examiner Khanh B. Pham	Art Unit 2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment filed August 19, 2005 has been entered. Claims 3, 6-7, 10 have been amended. Claims 1-16 are pending in this Office Action.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 1-6, 8-11, 13-16** are rejected under 35 U.S.C. 102(e) as being anticipated by Nishigaya et al. (US 2001/0010056 A1), hereinafter "Nishigaya".

As per claims 1, Nishigaya teaches a computer-implemented method for automating operations of a computing arrangement coupled to a message processor (Fig. 1) comprising:

- "establishing a pattern database including a plurality of pattern definitions and response definitions" at page 3, [0057] and Fig. 1, element 21;

- “each pattern definition being associated with one or more associated response definitions” at page 3, [0057] and Fig. , element 21;
- “one or more of the response definitions including one or more commands and instructions for queuing command to a command queue having storage available for a plurality of commands” at page 4, [0069];
- “searching the pattern database for pattern definitions that match the message character string” at page 4, [0065] and Fig. 4;
- “for the pattern definition that match the messages, adding associated commands to the command queue in processing the response definitions” at page 4, [0069] and Fig. 6;
- “dequeuing commands from the command queue and issuing the commands to the computing arrangement” at page 5, [0070], [0075]

As per claim 2, Nishigaya teaches the method of claim 1, wherein

- “the pattern database further includes a pattern definition that matches a command prompt message” at page 3, [0057];
- “and further comprising dequeuing a command from the command queue and submitting the command to the computing arrangement in processing the response definition associated with the pattern definition that matches a command prompt message” at page 5, [0075],

As per claim 3, Nishigaya teaches the method of claim 1, wherein :

- “the computing arrangement further includes a host data processing system coupled to a data storage system” at Fig. 14, element 54;
- “and an operations processor coupled to the host and to the data storage system” at Fig. 14, element 51;
- “and the plurality of pattern definition includes a first definition matching a selected first message from the host, the first message associated with a selected high-level operation of the data storage system” at page 6, [0106] - [0130];
- “the pattern definition further including a plurality of definition matching selected messages from the data storage system generated in performing the high-level operation and having associated responses that are commands required for the high-level operation” at page 6, [0106] - [0130];

As per claims 4, 11, Nishigaya teaches the method of claims 1, 8, wherein:

- “the computer arrangement further includes a host data processing system coupled to a data storage system, and an operation processor coupled to the host and to the data storage system” at Fig. 14
- “defining a plurality of command queue data structures in the pattern database” at page 4, [0069] and page 8, [0189]
- “each command queue having a priority level relative to the other command queues and having storage available for a plurality of commands” at page 8, [0188];

- “for one or more pattern definition that match the messages, selecting the command queues as selected command queues and adding the one or more associated responses to the selected command queues responsive to instruction associated with the pattern definition” at page 4, [0069]
- “for a pattern definition that matches a command prompt message from the data storage system, dequeuing responses from the command queues in priority order and submitting the commands to the data storage system” at page 5, [0075].

As per claims 5, 9, Nishigaya teaches the method of claims 4, 8, wherein

- “the pattern database further includes a pattern definition that matches a command prompt message” at page 3, [0057];
- “and further comprising dequeuing a command from the command queue and submitting the command to the computing arrangement in processing the response definition associated with the pattern definition that matches a command prompt message” at page 5, [0070], [0075].

As per claims 6, 10, Nishigaya teaches the method of claims 5, 9, wherein:

- “the computer arrangement further includes a host data processing system coupled to a data storage system, and an operation processor coupled to the host and to the data storage system” at Fig. 14;
- “the plurality of pattern definitions includes a first definition matching a selected first message from the host” at page 3, [0057] - [0058],

- “the first message associated with a selected high-level operation of the data storage system”
- “the pattern definition further including a plurality of definitions matching selected messages from the data storage system generated in performing the high-level operation and having associated response that are commands required for the high-level operation” at

As per claim 8, Nishigaya teaches the method of claim 1, further comprising:

- “defining the command queue as a character string” at page 6, [0106] - [0110];
- “adding character strings representing the commands to the command queue” at page 4, [0069];
- “delimiting the character strings with a selected character” at page 6, [0106] - [0110];

The limitations of claims 13-16 have been discussed in the rejection of claims 1-6, 8-11 above. Claims 13-16 are therefore rejected by the same reasons.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the

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various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. **Claims 7, 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishigaya et al. as applied to claims 1-6, 8-11, 13-16 above, and in view of Li et al. (US 6,374,207 B1), hereinafter "Li".

As per claims 7, 12, Nishigaya teaches the method of claims 6, 8 wherein

- "the computer arrangement further includes a host data processing system coupled to a data storage system, and an operation processor coupled to the host and to the data storage system" at Fig. 14
- "establishing a connection between the operation processor and the data storage system; transmitting the command prompt message from the data storage system to the operation processor; submitting the commands to the data storage system " at page 8, [0178] - [0184];

The different between Nishigaya and the invention of claims 7, 12 is that Nishigaya does not explicitly teach "establishing a terminal emulation session" as claimed. However, it is well known in the art, as exemplary by Li to establish a connection between the operation processor and the data storage using terminal emulation session (Col.1 lines 10-65). Thus, it would have been obvious to one of ordinary skill in the art at

the time of the invention was made to implement Nishigaya method employing terminal emulation session to establish a connection between the operation processor and the data storage device, in order to improve the interaction between a client and a resource by allowing accessing and sending command to the resource remotely.

Response to Arguments

7. Applicant's arguments filed August 19 2005 have been fully considered but are not persuasive. The examiner respectfully traverses applicant's arguments.

Applicants argued that Nishigaya does not teach: "one or more of the response definitions including one or more commands and instructions for queuing a command to a command queue having storage available for a plurality of commands". On the contrary, Nishigaya teaches this limitation at [0069] recited bellows:

"the pattern match processing unit 13 renders an action list empty (step S30). Subsequently, for each of the actions, the pattern match processing 13 checks whether the input pattern of the action matches the contents of the parameter of a received message (step S31), and add the name of an applicable action into the action list (step S32).

Nishigaya's action list therefore corresponds to the claimed command queue, and the pattern match processing 13 comprises instructions for adding the name of an applicable action into the action list (i.e., "instruction for queuing a command to a command queue").

The above text portion also teaches the step: "for the pattern definition that match the messages, adding associated commands to the command queue in processing the response definition" because Nishigaya teaches "the pattern match processing 13 checks whether the input pattern of the action matches the contents of the parameter of a received message" (i.e., "for the pattern definition that match the message"), and "adding the name of an applicable action into the action list" (i.e., "adding associated commands to the command queue") as claimed.

Regarding claim 2, Nishigaya also teaches the limitation: "dequeuing commands from the command queue and issuing the commands to the computer arrangement" at [0070] and [0075]. Particularly, Nishigaya teaches at [0070] the action execution unit 14 for executing actions and Nishigaya teaches at [0075] the step of deleting executed actions from the action list (i.e., "dequeuing command from command queue").

Regarding claim 3, applicant argued that Nishigaya does not teach: "commands for high-level operation of a data storage system". Since applicant's specification does not provide definition for the term "high-level operation", the examiner interprets "commands for high-level operation" to be command written in high-level language. Nishigaya teaches at [0106]-[0130] different action (i.e., commands) using object oriented programming language (i.e., "high-level language", as opposed to low-level language such as assembly language). Nishigaya therefore teaches the claimed limitation: "commands for high-level operation of data storage system" as claimed.

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8. Regarding claim 7 and 12, Applicants argued that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Nishigaya teaches all limitations of claims 7, 12, except the limitation: "establishing a terminal emulation session" before submitting commands to the data storage system. However, terminal emulation such as telnet is well known in the art for remotely sending commands. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement Nishigaya method by employing terminal emulation session to establish a connection between the operation processor and the data storage device, in order to improve the interaction between a client and a resource by allowing accessing and sending commands to the resource remotely. In response to applicant's argument that "this alleged motivation does not present any evidence that Nishigaya's system is deficient in any way in the manner of "interaction between a client and a resource" nor is any evidence presented to indicate which elements of Nishigaya's system would be improved", and "it is not apparent that the combination could be made with a reasonable likelihood of success", the examiner respectfully submit that Nishigaya does not allow access from a remote location; on the other hand, using terminal emulation application such as telnet is well known in the art for remote

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accessing. The improvement and likelihood of success are apparent because terminal emulation application is a well established application and widely available, and adding terminal emulation would allow remote access to Nishigaya's system from a remote location.

In light of the foregoing arguments, the 35 U.S.C 102 and 103 rejections are hereby sustained.

Conclusion

9. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh B. Pham whose telephone number is (571) 272-4116. The examiner can normally be reached on Monday through Friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Khanh B. Pham
Examiner
Art Unit 2166

November 7, 2005

A handwritten signature in black ink, appearing to read 'Khanh B. Pham', with a long horizontal flourish underneath.